

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NESHAP SOURCE

PERMITTEE

Precision Twist Drill Company
Attn: Kathleen Bender
301 Industrial Avenue
Crystal Lake, Illinois 60012

Application No.: 04090025

I.D. No.: 111015ACT

Applicant's Designation:

Date Received: September 9, 2004

Subject: Machine Tool Manufacturing Plant

Date Issued: June 9, 2006

Expiration Date: June 9, 2011

Location: 301 Industrial Avenue, Crystal Lake

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of one perchlorethylene (PCE) vacuum degreaser, three metal coating (rust proofing) dip tanks, two cold degreasers, heat treating line, soil vapor extraction and groundwater air stripping systems pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued:
 - i. To limit the emissions of hazardous air pollutant (HAP) from the source to less than major source thresholds (i.e., 10 tons/year for a single HAP and 25 tons/year for totaled HAP). As a result, the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit.
 - ii. To limit the emissions of VOM from the source to less than 25 tons/year. As a result, the source is excluded from the requirements of 35 Ill. Adm. Code Part 203, Major Stationary Sources Construction and Modification and Part 205, Emission Reduction Market System. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) issued for this location.
- 2a. The solvent cleaning machine is subject to 40 CFR Part 63, Subpart T - National Emission Standards for Halogenated Solvent Cleaning. The Illinois EPA is administering this regulation in Illinois on behalf of the United States EPA under a delegation agreement.

- b. The batch vapor degreaser must be in compliance with alternative emission standard for vapor cleaning machines without a solvent/air interface of 40 CFR 63.464(a)(2).
 - i. Maintain a log of solvent additions and deletions for each solvent cleaning machine; and
 - ii. Ensure that 3-month rolling average emissions from solvent cleaning machine are equal or less than 509 lb (40 CFR 63.464(a)(2)(ii)(A), Table 6).
- c. Pursuant to 40 CFR Part 63.465(b), the Permittee shall on the first operating day of every month ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent and used solvent that has been cleaned of soils. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating monthly emissions. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.
- d. Pursuant to 40 CFR Part 63.465(c), the Permittee shall on the first operating day of the month comply with the following requirements:
 - i. Using the records of all solvents additions and deletions for the previous monthly reporting period, determine solvent emissions (E) using the equation in Condition 3(b).
 - ii. Determine SSR, using the following method:
 - A. From test conducted using EPA reference method 25d.
 - B. By engineering calculations included in the compliance report.
 - iii. Determine monthly rolling average, EA, for the 3-month period ending with the most recent reporting periods using the following equation:

$$EA_n = \frac{\sum_{j=1}^3 E_n}{3}$$

Where:

EA_n = The average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods, (pounds of solvent per month).

$j=1$ = The most recent monthly reporting period.

j=2 = The monthly reporting period immediately prior to j=1.

j=3 = The monthly reporting period immediately prior to j=2.

- iv. The Permittee shall determine cleaning capacity to compute the appropriate emissions limit applicable to the specific cleaning machine. Cleaning capacity can be obtained from manufacturer's information or can be calculated by using the following equation:

$$\text{Capacity} = \text{Internal Width (IW)} * \text{Internal Length (IL)} * \text{Depth (D)}$$

- 3a. Emissions and operation of solvent cleaning machine shall not exceed the following limits, pursuant to 40 CFR Part 63.464(a)(2):

<u>Type of Solvent Cleaning Machine</u>	<u>Cleaning Capacity (Ft³)</u>	<u>Organic Material Emission 3-Month Rolling Average Monthly Emissions</u>	
		<u>(Lbs/Month)</u>	<u>(Tons/Year)</u>
Batch	19	509	3.0

These limits are based on solvent cleaning machine's cleaning capacity and determined from the emission limits for cleaning machine without a solvent-air interface area as per 40 CFR Part 63.464(a)(2)(ii)(A).

- b. Halogenated solvent emission shall be determined by the following equation. E, SA, LSR, SSR, and AREA shall be determined on the first operating day of each month.

$$E = (SA - LSR - SSR)$$

Where:

E = The total halogenated HAP solvent emissions from the solvent cleaning machine during the current month (lb/ft²).

SA = The total amount of halogenated HAP liquid solvent added to the solvent cleaning machine during the current month (lb/month). Solvent addition up to pre marked fill line is required to maintain the same level at the beginning of each month before the calculation.

LSR = The total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine during the current month (lb/month). Solvent is removed when it is necessary to remove.

SSR = The total amount of halogenated HAP solvent removed from the solvent cleaning machine in solid waste during the current month (lb/month). This shall be determined by engineering calculation or by EPA test method 25D.

- 4a. The Permittee shall retain the following records on paper or computer disk for five years, pursuant to 40 CFR Part 63.467(c):
 - i. Record the date and amount of solvent added (SA) to each solvent cleaning machine.
 - ii. Record the date and amount of halogenated HAP solvent removed (LSR) from each solvent cleaning machine.
 - iii. The amount of solvent removed (SSR) from the waste of each cleaning machine. Analysis sheet (EPA test method 25D) or calculation shall be retained.
 - iv. Calculation sheet showing how the monthly emissions and the 3-month rolling average monthly emissions were determined.
 - v. Emissions of organic material (lbs/month).
 - vi. Emissions of organic material (tons/year).
- b. Any records by this permit shall be readily available for inspection and copying by the Illinois EPA.
5. The Permittee shall comply with the following reporting requirements pursuant to 40 CFR Part 63.468.
 - a. An initial statement of compliance report, pursuant to 40 CFR Part 63.468(e), demonstrating each existing solvent cleaning machine is in compliance by December 2, 1997, must be submitted no later than May 1, 1998. For new solvent cleaning machine compliance report shall be submitted no later than 150 days after startup. Any machine installed on or before November 29, 1993, is considered as existing machine and installed after November 29, 1993, is considered as new machine. The initial compliance report shall include the following:
 - i. Name and address.
 - ii. Facility location address.
 - iii. The method and calculation of determining cleaning capacity of each cleaning machine without a solvent-air interface area.
 - iv. The results of the first 3-month average emission calculation.
 - b. A solvent emission report, pursuant to 40 CFR Part 63.468(g), shall be submitted for each batch vapor or in-line solvent cleaning machine. The solvent emission report shall contain the following:

- i. The size (air-interface area or capacity) and type (batch vapor or in-line) for each solvent cleaning machine.
 - ii. The average monthly solvent consumption for the solvent cleaning machine in lb/month.
 - iii. The 3-month rolling average monthly emission estimate calculated for each month.
 - c. An exceedance report, pursuant to 40 CFR Part 63.468(h), shall be submitted every 6 months if there is not an exceedance, and every 3 months if there is an exceedance. If an exceedance did not occur the report would consist of a statement certifying that there was no exceedance. The frequency of exceedance report will increase to quarterly after an exceedance occurs. The frequency can be reduced to every six month upon approval from the Illinois EPA provided no exceedance has occurred during the last one year. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. The exceedance report shall include the following:
 - i. If an exceedance has occurred, the reason for the exceedance.
 - ii. If no exceedance has occurred, such information shall be stated in the report.
 - d. The Permittee shall submit exceedance report within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
 - e. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least 5 years, unless specifically stated in the permit from the date of entry and shall be made available for inspection and copying by the Illinois EPA and USEPA upon request. Any records retained in a computer shall be cable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
- 6a. This permit is issued based upon the coating operations performed at the facility (rustproofing) being subject to the VOM emission limitations of 35 Ill. Adm. Code 218.204(j)(4)(A). Compliance with the requirements is achieved through the use of compliance coating with VOM content, as applied, not exceeding 3.3 lbs/gallon, excluding water and any compounds which are specifically exempted from the definition of VOM.

- b. VOM usage and VOM emissions from three coating dip tanks (combined) shall not exceed 0.5 tons/month and 5.6 tons/year. These limits are based on the maximum coating usage and VOM content of the coating. Compliance with annual limits shall be determined from a running total of 12 months of data.
- 7a. The cold degreasers shall be operated according to the operating, equipment and material requirements of 35 Ill. Adm. Code 218.182.
- b. The VOM usage and emissions from two cold degreasers operations shall not exceed 60 lbs/month and 700 lbs/year. These limits are based on the maximum solvent usage and VOM content of the solvent. Compliance with annual limits shall be determined from a running total of 12 months of data.
8. Operations and emissions of soil vapor extractor and groundwater air stripper shall not exceed the following limits:

<u>Equipment</u>	<u>Contaminant Concentration (µg/L)</u>	<u>Flow Rate</u>	<u>PCE Emissions (Lbs/Hr)</u>	<u>(Tons/Yr)</u>
Soil Vapor Extractor	11.75	650 cfm	0.03	0.13
Air Stripper	1,910	250 Gal/Min	0.24	1.05

These limits are based on the maximum operating capacity and exhaust air and influent water contaminant concentrations measurements. Compliance with annual limits shall be determined monthly from a running total of 12 months of data.

9. The emission of particulate matter from the heat treat line shall not exceed 104 lbs/month and 0.6 tons/year. These limits are based on the maximum operating rate and emission factor 0.14 lb/hr derived from the stack test. Compliance with annual limits shall be determined monthly from a running total of 12 months of data.
10. The Permittee shall maintain monthly records of the following items:
 - i. Names and amounts of VOM and HAP-containing raw materials used (tons/month, tons/year);
 - ii. VOM and HAP content of materials in item (a) (weight %); and
 - iii. VOM and HAP emissions with supporting calculations (tons/month, tons/year).
11. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able

to respond to an Illinois EPA request for records during the course of a source inspection.

12. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
13. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

It should be noted that the fuel burning heaters and ovens with firing rate less than 10 mmBtu/hour and metal cutting and grinding equipment is exempt from permit requirements pursuant to 35 Ill. Adm. Code 201.146(d) and (aa), respectively.

If you have any questions on this, please call Valeriy Brodsky at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:VJB:psj

cc: Region 1
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the Machine Tool Manufacturing Plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions. The resulting maximum emissions are below the levels, e.g., 10 tons per year for a single HAP and 25 tons per year for totaled HAP at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that material is handled, and control measures are more effective than required in this permit.

<u>Emission Units</u>	E M I S S I O N S (Tons/Year)			
	<u>VOM</u>	<u>PM</u>	<u>Single HAP (PCE)</u>	<u>Total HAP</u>
Vacuum Degreaser			3.0	
Rust Proofing Coating	5.6			
Cold Degreasers	0.4			
Soil Vapor Extractor			0.13	
Groundwater Air Stripper			1.05	
Heat Treat Line		0.6		
Total	6.0	0.6	4.20	< 25

VJB:psj